

MA/ISA FILE CY

LOCKHEED AIRCRAFT CORP.		ENGINEERING STUDY <input type="checkbox"/>		CHANGE PROPOSAL <input checked="" type="checkbox"/>		LAC -170				
DATE 27 January 1964		AFFECTS: WSPO <input checked="" type="checkbox"/>		PROJECT <input checked="" type="checkbox"/>						
NAME OF MAJOR COMPONENT 814 B Transponder		PART OR LOWEST SUBASSEMBLY		PART NO. & MODEL OR TYPE						
TITLE OF PROPOSAL : AIR TRAFFIC CONTROL SYSTEM										
NATURE OF PROPOSAL :  SEE PAGE 2										
REASON FOR PROPOSAL : To Provide Air Traffic Control Capabilities										
ES		ESTIMATED COST AND TIME INVOLVED :								
		ADDITIONAL FUNDING REQUIRED :								
CP		ESTIMATED COST FOR KITS OR PARTS : See Page 3								
		ADDITIONAL FUNDING REQUIRED : See Page 6								
ITEMS AFFECTED BY PROPOSAL :										
SAFETY <input type="checkbox"/>	MISSION EFFEC- TIVENESS <input type="checkbox"/>	PERFORM- ANCE <input type="checkbox"/>	OPERATING PROCEDURE <input type="checkbox"/>	INTER- CHANGE- ABILITY <input type="checkbox"/>	WEIGHT OR WEIGHT & BALANCE <input type="checkbox"/>	TOOLS & SUPPORT EQUIPMENT <input checked="" type="checkbox"/>	MAINTENANCE PROCEDURE <input checked="" type="checkbox"/>	SERVICE LIFE <input type="checkbox"/>	FLIGHT MANUAL <input checked="" type="checkbox"/>	MAINTENANCE MANUAL <input checked="" type="checkbox"/>
EST. MAN/HRS. REQ'D. TO ACCOMPLISH CHANGE IN FIELD										
SOURCE OF PARTS FOR KIT  LAC					AVAILABILITY _____ WEEKS AFTER APPROVAL  See Page 5			STAT		
DISPOSITION OF SPARES AFFECTED					REC APPROVAL 18 FEB '64					
INITIATED BY :					APPROVED :					

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**NATURE OF PROPOSAL:**

To provide an Air Traffic Control (ATC) transponder system compatible with military coded radar beacon equipment (Mark X (SLP)) operating in Military Mode 3 or Civil Mod A. The system consists of the following major components (Contractor furnished except as noted).

1. Wilcox 814B Transponder (4096 available codes on Mode A or C, with altitude reporting capabilities from zero to 100,000 feet).
2. Wilcox 88372-100 Shock Mount for 814 B Transponder.
3. Wilcox 97644-100 Control Head (4096 Codes on Mode A or C plus self test switch and light).
4. Wilcox 758 A Function Tester.
5. AS-133/AFX Antenna (GFE).

The WSP0 transponder will be contained in a pressure box installed in the R.H. cheek area. The box will be connected to the Q-Bay to maintain pressure. A small fan will supply cooling air. The Function Tester will be located in the vicinity of the pressure box. The control head will be installed in the L.H. console just aft of the ARC-34 controller. The antenna will be forward of the ARC-34 antenna under the cockpit.

The APX-25 will be removed from 349. The ATC transponder will be installed in the Q-Bay on the upper rack in place of the APX-25 Coder also the existing equipment on the rack will require relocation. The Control head will be located in place of the APX-25 control heads on the R.H. console. The existing antenna will be used.

The ATC transponder system is installed in 368 and 389. However, the 814 A transponder is being used with the corresponding 64 code control head. The 814 A will be modified to the 814 B configuration to provide 4096 codes with altitude reporting capabilities. The 64 code control heads can not be economically reworked to the 4096 code configuration. Ships wiring does not provide for the 4096 codes or the altitude reporting capabilities. These ships will be reworked to incorporate the modified transponder and new type control head. Although the Wilcox 716 A antennas are installed they can be replaced with the AS133/AFX antenna when existing stock of 716 A's is exhausted.

Ships 388 and 394 will have the ATC transponder installed in lieu of the APX-6 in the R.H. cheek. The existing AS-133/AFX antenna will be used.

The project airplanes will have the ATC transponder and function tester installed on the old continuous ignition inverter shelf. The ADF power supply (F-14A) now on the shelf will have to be relocated and changed to the transistorized type (DV-14A). This will require WRAMA to separate currently interchangeable stock. The antenna and control head will be installed similar to the WSP0 airplanes. Wiring provisions for both Customers will be installed for altitude sensor signals to be used when mode C becomes operational. Space provisions for a Kollsman Computer-Encoder (P/N KS-157) will be located in the main landing gear wheel. The Kollsman Computer-Encoder, although being considered at this time for space provision, may not be required when mode C becomes operational.

STAT

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Funding under preceding contracts is adequate contingent upon  
fund for second half of FY '64.

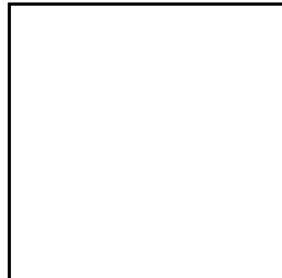
\*Note:

Due to a revised vendor proposal which will be effective 1 February 1964,  
the total price may be reduced by \$12,480 as follows:

Cust. #1 Kits -

Cust. #2 Kits -

Spares (Common)



25X1